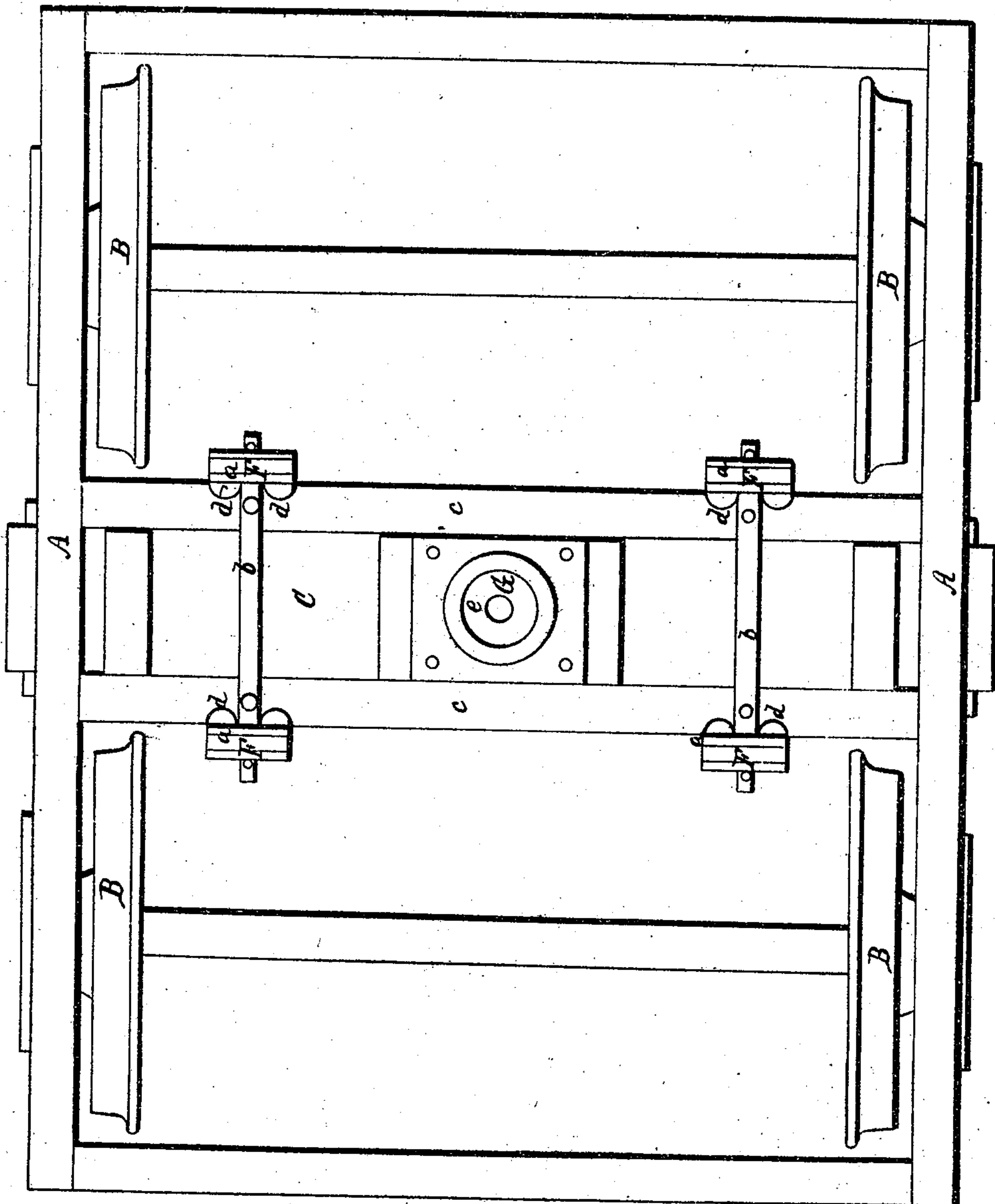


M. C. ANDREWS.
RAILWAY TRUCK.

No. 28,545.

Patented June 5, 1860.

Fig. 1.



Witnesses.

R. H. Ledy
E. W. Hunt

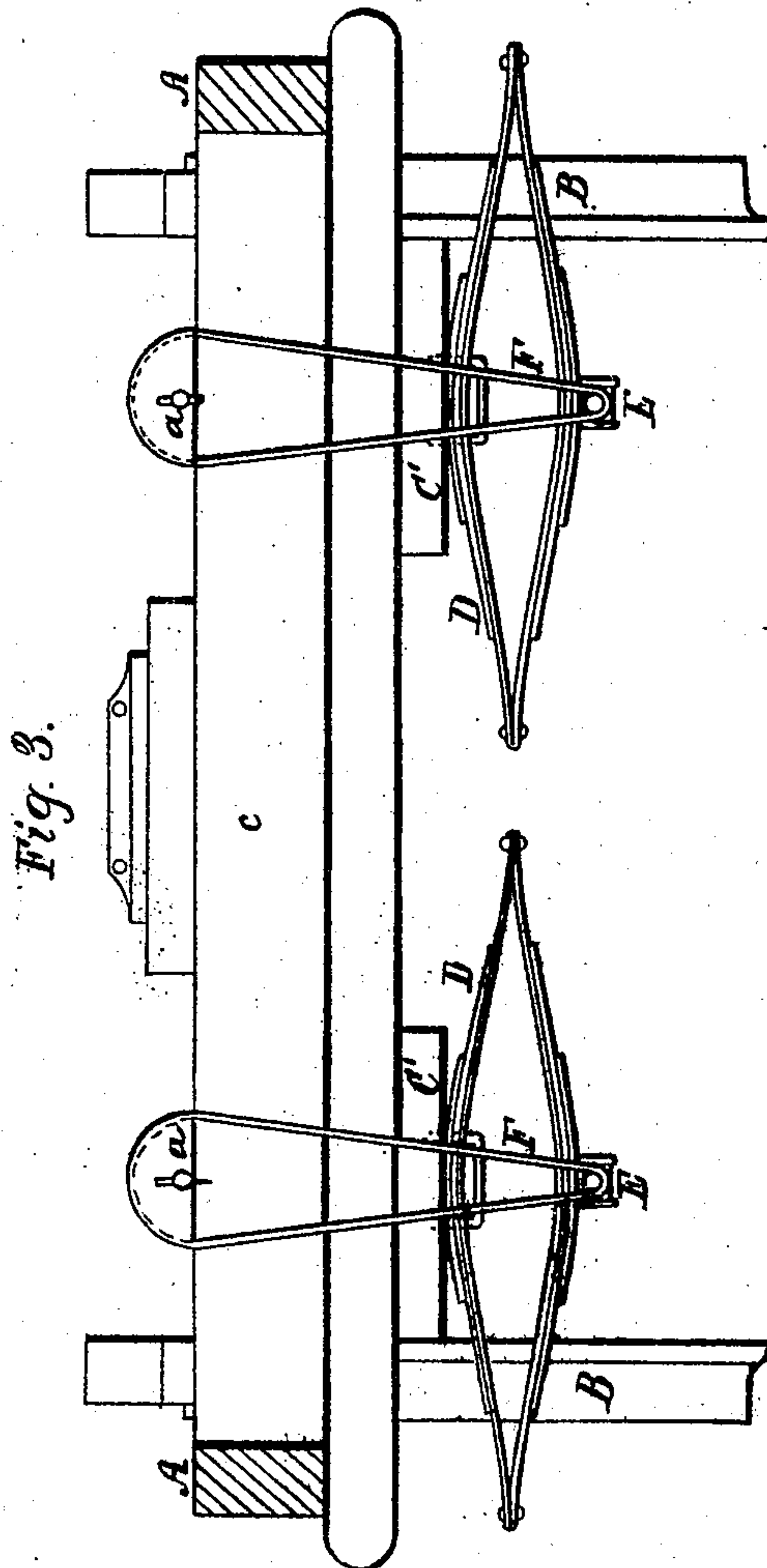
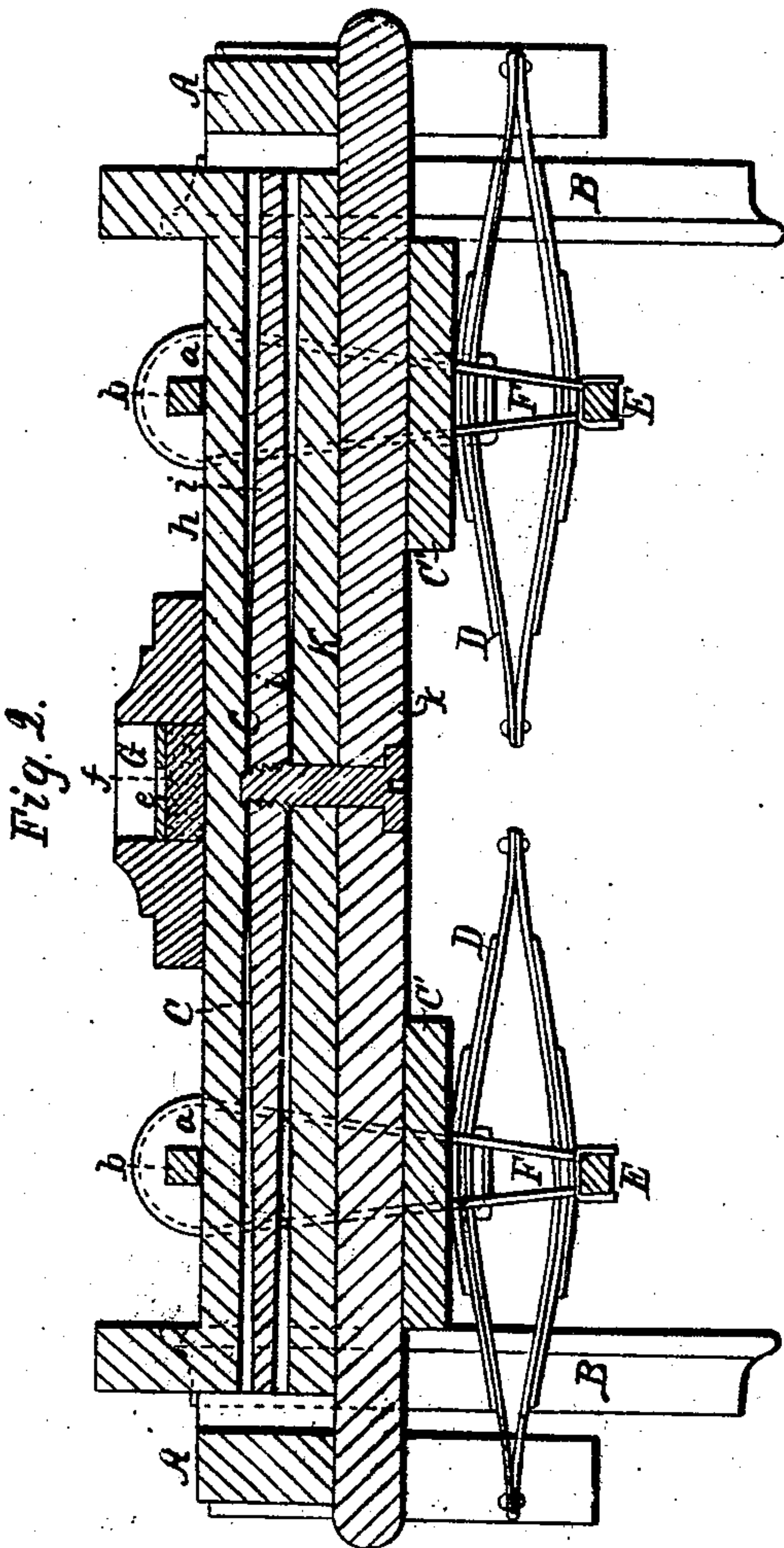
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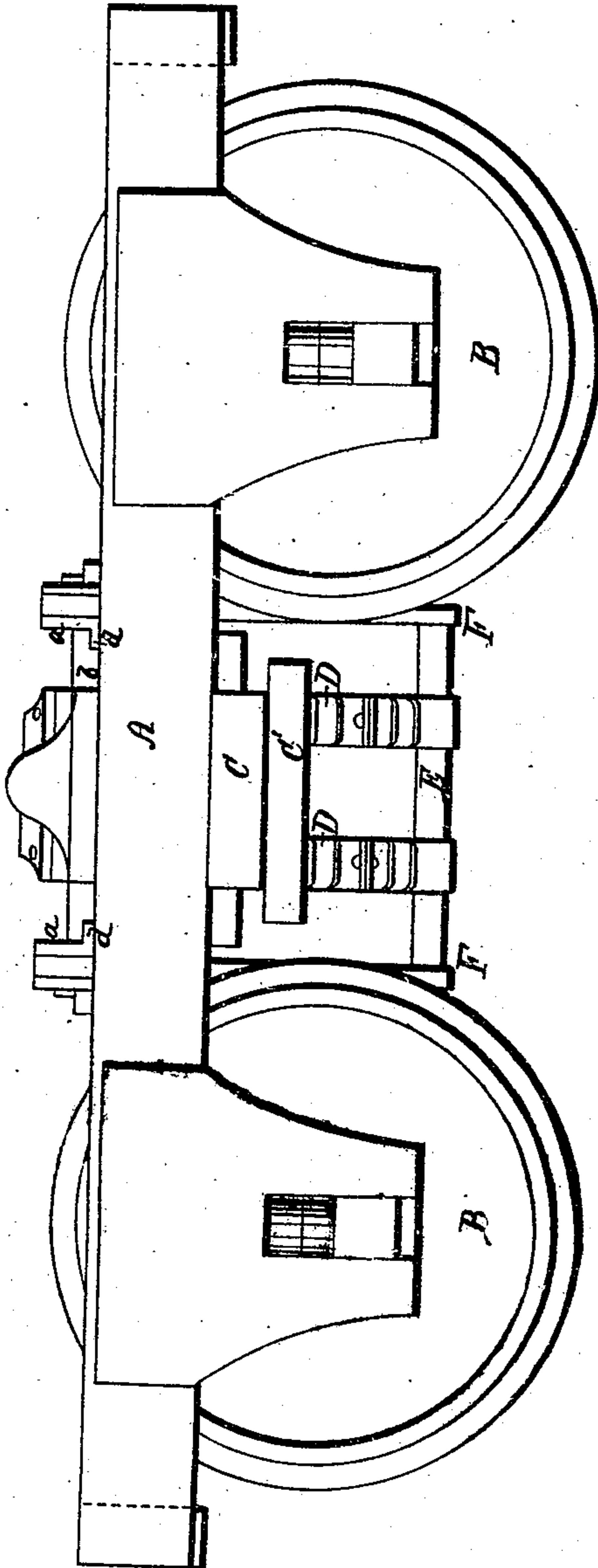
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Fig. 4.



Witnesses.

R. H. Eddy
C. D. Hull

Inventor.

M. C. Andrews

UNITED STATES PATENT OFFICE.

MANZIES C. ANDREWS, OF LAWRENCE, MASSACHUSETTS.

SWINGING BOLSTER FOR RAILROAD-CAR TRUCKS.

Specification of Letters Patent No. 28,545, dated June 5, 1860.

To all whom it may concern:

Be it known that I, MANZIES C. ANDREWS, of Lawrence, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in the Swinging Bolster of and its Application to a Railway-Carriage Truck, which I do hereby declare is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is a top view; Fig. 2, a transverse and central section of a car truck provided with my invention. Fig. 3, is another transverse section taken in front of the pendulous links of the truck frame and bolster. Fig. 4, is a side elevation of the truck.

The nature of my invention consists, first, in the combination of semi circular friction blocks with the truck frame, the bolster and its pendulous links; second, in an improved mode of making the swinging bolster, viz, with an elastic step for the central pivot and with the parts comprising the bolster capable of springing together, in manner and for the purpose as hereinafter described.

The swinging bolster, as usually applied to a railway car truck has its links or suspension devices supported by journals which admit of too much freedom of swing of the bolster, the same being productive of disadvantage in the operation of the car. To prevent this freedom of motion, I have supported each pendulous link on a curved friction block sustained either by the usual link journal or by other means of fixing it to the truck frame.

In the drawings, A, exhibits the truck frame, of which B, B, B, B, are the wheels, and C, the swinging bolster. This bolster is supported on saddles C', C', each of which is upheld by two springs D, D, sustained by a cross bar or shaft E. This bar, near its ends rests in the two suspension links, F, F, which are respectively supported by the arched or curved friction blocks a, a, the curve of the upper part of each link being in correspondence with that of the outer

surface of its friction block. These friction blocks are sustained in part by the transverse bars, b, b, which rest on and are bolted to the middle ties, c, c, of the truck frame. Each of them is also further supported by ears, d, d, which rest on the adjacent tie c. These blocks prevent the too easy swing of the bolster. Furthermore, the bolster socket, G, is provided with a metallic plate, e, resting on a spring or a block or piece, f, of vulcanized india rubber or other suitable equivalent. The car body central pivot which enters the socket, G, bears on the elastic step formed by the plate, e, and the spring, f. In connection with such an elastic step, I form the bolster of three timbers or parts, h, i, k, the middle part i, being made tapering from its ends toward its middle in manner as shown in Fig. 2. This will allow the bolster at either end to be compressed or sprung together while at its middle it will be unyielding or have no spring. The object of such a construction of the bolster is to facilitate the elevation or rising of the truck on either side when it may strike a curve, or any inequality of the track without at the same time producing any material or corresponding elevation of the body of the carriage, the elastic step under such circumstances permitting the car body to settle down and adjust itself on the side bearing that is whenever any degree of collapse of the bolster is produced, by such a sudden rise or tipping of the truck frame.

Having thus described my invention, I claim—

1. The combination of the friction blocks with the truck frame, the swinging bolster, and its pendulous links, the same being for the purpose described.

2. The application of the elastic step to the bolster in connection with so constructing the bolster that it may be capable of springing together substantially in manner and for the purpose as described.

M. C. ANDREWS.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.